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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,262	12/20/2001	Shunpei Yamazaki	12732-086001	7645

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EXAMINER
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HOGANS, DAVID L

ART UNIT	PAPER NUMBER
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2813

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/022,262

Applicant(s)

YAMAZAKI ET AL.

Examiner

David L. Hogans

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 79-86 is/are pending in the application.
- 4a) Of the above claim(s) 21-66 and 77-86 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This Office Action is in response to the Amendment filed on February 6, 2004.

#### ***Election/Restrictions***

1. Newly submitted claims 79-86 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Species I – appears to relate to Claims 79-86 (noting the inclusion of an interlayer insulating film and wherein the TFT and the wiring are electrically connected to each other through a contact hole in the interlayer insulating film)

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 79-86 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

#### ***Status of Claims***

Claims 1-20 are pending. Claims 67-76 are cancelled. Claims 21-66 and 77-86 are withdrawn.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US2001/0010370 Patent Application Publication to Kimura et al. in view of 6,319,741 to Izumi et al. in view of 5,756,147 to Wu et al.

Claims 1, 3, 5-7, 9, 11-13, 15, 19 and 20

Kimura et al., in paragraphs 0027-0029, 0044 and 0046, teaches a plurality of pixels (which inherently can be used in a personal computer) arranged in a matrix; each pixel comprising a switching element (TFT) and a light emitting element; a plurality of source signal lines which supply signals to the switching elements; a plurality of power supply lines which supply potentials to the light emitting elements; wherein at least one of the source signal lines comprises a first conductor and a first conductive coating on upper and side surfaces of the first conductor; and/or wherein at least one of the power supply lines comprises a second conductor and a second conductive coating on upper and side surfaces of the second conductor; and wherein the scanning or signal line may be comprised by a lamination of a high melting point metal and an upper layer of aluminum formed thereover. The Examiner notes that the melting point of silver is 961.93 degrees Celsius (a high melting point) and the melting point of aluminum is 660.37 degrees Celsius.

Kimura et al. fails to explicitly teach wherein the light emitting element comprises a light emitting layer including an organic compound and wherein said first/second conductor may be comprised by an Ag particle.

However, Izumi et al., in columns 7-11 lines 25-35, teaches wherein the light emitting layer includes an organic compound and wherein the conductive lines are plated with gold (Au). Furthermore, Wu et al., in column 11 lines 21-31, teaches wherein conductive metal address lines may be screen printed from a Ag/Pt alloy paste.

It would have been obvious to one of ordinary skill in the art to modify Kimura et al. by incorporating a light emitting layer with an organic compound and conductive lines plated with gold (Au), as taught by Izumi et al., to improve luminescence, color, efficiency and life cycle of the light emitting device. Furthermore, it would have been obvious to one of ordinary skill in the art to modify Kimura et al. by incorporating conductive metal address lines made by screen printing a Ag/Pt paste, as taught by Wu et al., to produce address lines by a cost effective method.

Finally, the Examiner notes that the specification contains no disclosure of either the critical nature of the claimed elements (i.e. – an organic light emitting layer or wherein the conductors are comprised by an Ag particle) or any unexpected results arising therefrom. Where patentability is said to be based upon particular chosen

limitations or upon another variable recited in a claim, the Applicant must show that the chosen limitations are critical. *In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990)

#### Claims 2, 8 and 14

Incorporating all arguments of Claims 1, 7 and 13 and noting that the method of forming a device is not germane to the issue of patentability of the device itself. Therefore, the limitation of “wherein the plated film is formed by an electroplating method”, has not been given patentable weight. Note that a “product by process” claim is directed to the product per se, no matter how actually made, *In re Hirao*, 190 USPQ 15 at 17 (footnote 3). See also *In re Brown*, 173 USPQ 685; *In re Luck*, 177 USPQ 523; *In re Fessmann*, 180 USPQ 324; *In re Avery*, 186 USPQ 161; *In re Wertheim*, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); *In re Marosi et al*, 218 USPQ 289; and particularly *In re Thorpe*, 227 USPQ 964, all of which make it clear that it is the patentability of the final product per se which must be determined in a “product by process” claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in “product by process” claims or not. Note that applicant has the burden of proof in such cases, as the above case law makes abundantly clear.

#### Claims 4, 10 and 17

Incorporating all arguments of Claims 1, 7 and 13 and noting that Kimura et al. and Wu et al. fail to explicitly teach wherein at least one of the first conductors or plated films is made of the same material as a gate electrode of the switching element.

However, Izumi et al., in column 4 lines 33-53 and columns 7-8 lines 61-12 and column 10 lines 42-65, teaches wherein at least one of the first conductors or plated films is made of the same material as a gate electrode of the switching element.

It would have been obvious to one of ordinary skill in the art to modify Kimura et al. and Wu et al. by incorporating wherein at least one of the first conductors or plated films is made of the same material as a gate electrode of the switching element, as taught by Izumi et al., because Al is displaceable with Au (i.e. – for the first conductors) and Ta (a noble metal) would deposit well on Ta (i.e. – for the plated films).

#### Claim 16

Incorporating all arguments of Claim 13 and noting that the method of forming a device is not germane to the issue of patentability of the device itself. Therefore, the limitation of “wherein the first conductor and the second conductor are simultaneously formed”, has not been given patentable weight. Note that a “product by process” claim is directed to the product per se, no matter how actually made, *In re Hirao*, 190 USPQ 15 at 17 (footnote 3). See also *In re Brown*, 173 USPQ 685; *In re Luck*, 177 USPQ 523; *In re Fessmann*, 180 USPQ 324; *In re Avery*, 186 USPQ 161; *In re Wertheim*, 191

USPQ 90 (209 USPQ 554 does not deal with this issue); In re Marosi et al, 218 USPQ 289; and particularly In re Thorpe, 227 USPQ 964, all of which make it clear that it is the patentability of the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. Note that applicant has the burden of proof in such cases, as the above case law makes abundantly clear.

#### Claim 18

Incorporating all arguments of Claim 13 and noting that the method of forming a device is not germane to the issue of patentability of the device itself. Therefore, the limitation of "wherein at least one of the first plated film and the second plated film is formed by a printing method", has not been given patentable weight. Note that a "product by process" claim is directed to the product per se, no matter how actually made, In re Hirao, 190 USPQ 15 at 17 (footnote 3). See also In re Brown, 173 USPQ 685; In re Luck, 177 USPQ 523; In re Fessmann, 180 USPQ 324; In re Avery, 186 USPQ 161; In re Wertheim, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); In re Marosi et al, 218 USPQ 289; and particularly In re Thorpe, 227 USPQ 964, all of which make it clear that it is the patentability of the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a



product, whether claimed in "product by process" claims or not. Note that applicant has the burden of proof in such cases, as the above case law makes abundantly clear.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,137,218 to Kaneko et al. teaches forming a pixilated array wherein the Ag wiring lines are plated to reduce wiring resistance which can cause signal delay.

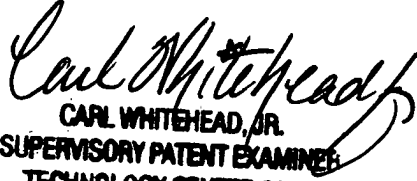
Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Hogans whose telephone number is (571) 272-1691. The examiner can normally be reached on M-F (7:30-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead Jr. can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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